US 20160038083A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2016/0038083 A1**

(43) **Pub. Date: Feb. 11, 2016**

Ding et al.

(54) **GARMENT INCLUDING INTEGRATED SENSOR COMPONENTS AND FEEDBACK COMPONENTS**

(71) Applicant: **Orn, Inc.**, Cambridge, MA (US)

(72) Inventors: **Ye Ding**, Cambridge, MA (US); **Arnar Freyr Larusson**, Cambridge, MA (US)

(21) Appl. No.: **14/822,332**

(22) Filed: **Aug. 10, 2015**

Related U.S. Application Data

(60) Provisional application No. 62/035,172, filed on Aug. 8, 2014.

Publication Classification

(51) **Int. Cl.**

A61B 5/00	(2006.01)
A61B 5/11	(2006.01)
A61B 5/024	(2006.01)
A41D 13/12	(2006.01)

(52) **U.S. Cl.**

CPC ***A61B 5/6804*** (2013.01); ***A41D 13/1281*** (2013.01); ***A61B 5/1107*** (2013.01); ***A61B 5/1121*** (2013.01); ***A61B 5/486*** (2013.01); ***A61B 5/7455*** (2013.01); ***A61B 5/024*** (2013.01); ***A61B 5/6844*** (2013.01); *A61B 2562/164* (2013.01); *A61B 2560/0242* (2013.01)

(57) **ABSTRACT**

A garment for measuring one or more parameters of a wearer includes a base material configured to be worn by a wearer and a sensing component. The sensing component has a first elastic stretchability along a first axis and a second elastic stretchability along a second axis that is greater than the first elastic stretchability. The sensing component is integrated into a first location of the base material corresponding to a predetermined region of the wearer. The sensing component includes an electrically conductive material having an electrical resistance that changes with a change in a length of the sensing component. The sensing component includes at least one wire to electrically couple the electrically conductive material to a controller including a processor and a memory. The memory stores processor-executable instructions to cause the controller to determine a electrical resistance value across the sensing component via the at least one wire.